

2. MSA-RGD, in which the RGD sequence (VRGDF, SEQ ID NO: 1) replaces the MSA sequence between Cys 53 and Cys 62.
3. MSA-11B3, in which the 11-B3 peptide sequence (PSTLRAQ, SEQ ID NO: 3) replaces the MSA sequence between Cys 53 and Cys 62
4. MSA-1H5, in which the 1-H5 peptide sequence (HTKQIPRHIYSA, SEQ ID NO: 4) is inserted between Glu 57 and Ser 58 within the Cys 53 and Cys 62 loop of MSA
5. MSA-9G5, in which the 9-G5 peptide sequence (DSHKRLK, SEQ ID NO: 5) replaces the MSA sequence between Cys 53 and Cys 62
6. MSA-myc, in which the Myc epitope peptide sequence (EQKLISEEDL, SEQ ID NO: 2) is inserted between Glu 57 and Ser 58 within the Cys 53 and Cys 62 loop of MSA (negative control)

In the claims:

For the convenience of the Examiner, all elected claims (1-27, 34, and 49-52), whether or not amended, are presented below.

1. **(Reiterated)** A chimeric polypeptide comprising a serum albumin protein (SA) having a biologically active heterologous peptide sequence inserted therein, wherein the chimeric peptide exhibits increased biological activity relative to the heterologous peptide sequence itself.
2. **(Reiterated)** A chimeric polypeptide having the structure A-B-C, wherein:
A represents a first fragment of serum albumin (SA);
B represents a biologically active heterologous peptide sequence; and
C represents a second peptide fragment of SA;
wherein the chimeric peptide exhibits increased biological activity relative to the heterologous peptide sequence itself.
3. **(Reiterated)** A chimeric polypeptide comprising:

a first peptide fragment, comprising an N-terminal fragment of serum albumin (SA) protein;

a second peptide fragment, comprising a biologically active heterologous peptide sequence, and

a third peptide fragment, comprising a C-terminal fragment of SA;

wherein the chimeric peptide exhibits increased biological activity relative to the heterologous peptide sequence itself.

4. **(Reiterated)** The chimeric polypeptide of claim 1, 2, or 3, wherein the heterologous peptide sequence comprises a fragment of an angiogenesis-inhibiting protein or polypeptide.
5. **(Reiterated)** The chimeric polypeptide of claim 4, wherein said angiogenesis-inhibiting protein or polypeptide is selected from the group consisting of angiostatin, endostatin, and peptide fragments thereof.
6. **(Reiterated)** The chimeric polypeptide of claim 1, 2, or 3, wherein the heterologous peptide sequence binds to a cell surface receptor protein.
8. **(Reiterated)** The chimeric polypeptide of claim 6, wherein the receptor protein is a tyrosine-kinase receptor. /
12. **(Reiterated)** The chimeric polypeptide of claim 1, 2, or 3, wherein the chimeric polypeptide binds to an extracellular receptor or an ion channel.)
13. **(Reiterated)** The chimeric polypeptide of claim 12, wherein the chimeric polypeptide is an agonist of said receptor or ion channel.
14. **(Reiterated)** The chimeric polypeptide of claim 12, wherein the chimeric polypeptide is an antagonist of said receptor or ion channel.)
15. **(Reiterated)** The chimeric polypeptide of claim 1, 2, or 3, wherein the chimeric polypeptide induces apoptosis.)

16. **(Reiterated)** The chimeric polypeptide of claim 1, 2, or 3, wherein the chimeric polypeptide modulates cell proliferation.
17. **(Reiterated)** The chimeric polypeptide of claim 1, 2, or 3, wherein the chimeric polypeptide modulates differentiation of cell types.
18. **(Reiterated)** The chimeric polypeptide of claim 1, 2, or 3, wherein the heterologous peptide sequence comprises between 4 and 400 residues.
19. **(Reiterated)** The chimeric polypeptide of claim 1, 2, or 3, wherein the heterologous peptide sequence comprises between 4 and 200 residues.
20. **(Reiterated)** The chimeric polypeptide of claim 1, 2, or 3, wherein the heterologous peptide sequence comprises between 4 and 100 residues.
21. **(Reiterated)** The chimeric polypeptide of claim 1, 2, or 3, wherein the heterologous peptide sequence comprises between 4 and 20 residues.
22. **(Reiterated)** The chimeric polypeptide of claim 1, 2, or 3, wherein the tertiary structure of the chimeric polypeptide is similar to the tertiary structure of native SA.
23. **(Reiterated)** The chimeric polypeptide of claim 1, wherein the inserted peptide sequence replaces a portion of native SA sequence.
24. **(Reiterated)** The chimeric polypeptide of claim 23, wherein the inserted peptide sequence and the replaced portion of native SA sequence are of unequal length. ✓
25. **(Reiterated)** The chimeric polypeptide of claim 1, 2, or 3, wherein the half-life of the polypeptide in the blood is no less than 14 days. ✓
26. **(Reiterated)** The chimeric polypeptide of claim 2, 3, or 3, wherein the half-life of the polypeptide in the blood is no less than 10 days. ✓
27. **(Reiterated)** The chimeric polypeptide of claim 1, 2, or 3, wherein the half-life of the polypeptide in the blood is no less than 50% of the half-life of native SA. ✓

34. **(Reiterated)** A pharmaceutical preparation comprising a pharmaceutically acceptable excipient and the chimeric polypeptide of claim 1, 2, or 3.

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49. **(Amended)** The chimeric polypeptide of claim 1, wherein the biologically active heterologous peptide sequence is inserted into a cysteine loop of the serum albumin protein.

50. **(Reiterated)** The chimeric polypeptide of claim 49, wherein the cysteine loop is selected from Cys53-Cys62, Cys75-Cys91, Cys90-Cys101, Cys245-Cys253, Cys266-Cys279, Cys360-Cys369, Cys461-Cys477, Cys476-Cys487, and Cys558-Cys567.

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51. **(Amended)** The chimeric polypeptide of claim 23, wherein the biologically active heterologous peptide sequence replaces a portion of a cysteine loop of the serum albumin protein.

52. **(Reiterated)** The chimeric polypeptide of claim 51, wherein the cysteine loop is selected from Cys53-Cys62, Cys75-Cys91, Cys90-Cys101, Cys245-Cys253, Cys266-Cys279, Cys360-Cys369, Cys461-Cys477, Cys476-Cys487, and Cys558-Cys567.

The claims presented above incorporate changes as indicated by the marked-up versions below.

49. **(Amended)** The chimeric polypeptide of claim 1, wherein the biologically active heterologous peptide sequence is inserted into a cysteine loop of the serum albumen albumin protein.

51. **(Amended)** The chimeric polypeptide of claim 23, wherein the biologically active heterologous peptide sequence replaces a portion of a cysteine loop of the serum albumen albumin protein.

REMARKS

Claims 1-52 constitute the pending claims in the present application. Among them, claims 28-33, and 35-48 are directed to non-elected inventions and are withdrawn from further consideration. Applicants will cancel these claims upon indication of allowable subject matter.